

In the Claims

Please add new claims 2-50.

1. (Original) A method, comprising:
applying from an applicator, via pressurized gas, an initially fluent therapeutic material precursor to a tissue surface of a mammal; and
allowing the fluent material to harden to form a non-fluent therapeutic material on the tissue surface.
2. (New) The method of claim 1, wherein the tissue surface is internally of a mammal.
3. (New) The method of claim 1, wherein the fluent material is polymerizable.
4. (New) The method of claim 3, comprising applying, to the fluent material, a second material able to chemically initiate polymerization of the fluent material.
5. (New) The method of claim 1, comprising applying a predetermined volume of the fluent material to the tissue surface.
6. (New) The method of claim 5, wherein the step of applying a predetermined volume of the fluent material defines a first cycle of a cyclical procedure, the method further comprising applying a predetermined volume of a second material to the tissue surface in a second cycle.
7. (New) The method of claim 6, wherein the predetermined volume of the fluent material and the predetermined volume of the second material are essentially the same.
8. (New) The method of claim 1, comprising applying the fluent material in a group of adjacent and overlapping patterns.
9. (New) The method of claim 1, comprising spraying the fluent material onto the tissue surface.

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10. (New) The method of claim 9, wherein the step of spraying comprises delivering a bolus of fluid into a gas stream moving at a velocity sufficient to atomize the fluid to form a spray comprising the fluent material.
11. (New) The method of claim 9, wherein the step of spraying comprises spraying the fluent material onto the tissue surface in a generally conical spray pattern.
12. (New) The method of claim 1, comprising applying the fluent material to the tissue surface as a thin film.
13. (New) The method of claim 1, comprising emitting the fluent material from an emission element located at a distal portion of the applicator having a proximal portion and a distal portion.
14. (New) The method of claim 13, wherein the emission element comprises a nozzle.
15. (New) The method of claim 1, wherein the applicator comprises a distal portion adapted for insertion into the mammal and a proximal portion adapted to remain outside the mammal, the method further comprising inserting the distal portion of the applicator into the mammal.
16. (New) The method of claim 1, wherein the fluent material comprises a biologically active agent.
17. (New) The method of claim 1, wherein the fluent material is biodegradable.
18. (New) The method of claim 1, wherein the non-fluent material serves as one or more of a tissue adhesive, a barrier to prevent tissue adhesions, a protective tissue coating a local application of a biologically active species, and a method for controlled release of biologically active species to achieve systemic and local effects.
19. (New) The method of claim 1, wherein the non-fluent material is an adherent tissue coating.

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20. (New) The method of claim 1, wherein the fluent material comprises one or more reactive groups selected from acrylates, diacrylates, oligoacrylates, methacrylates, dimethacrylates, oligomethacrylates, isocyanates, isothiocyanates and amines.
21. (New) The method of claim 1, wherein the fluent material hardens due to reaction of one or more reactive groups selected from acrylates, diacrylates, oligoacrylates, methacrylates, dimethacrylates, oligomethacrylates, isocyanates, isothiocyanates and amines.
22. (New) The method of claim 1, wherein the fluent material is in an amount effective to cover an entire portion of the tissue.
23. (New) The method of claim 1, wherein the fluent material is in an amount effective to substantially fill a void in the tissue.
24. (New) The method of claim 1, comprising inserting the applicator, percutaneously, into the body of a mammal.
25. (New) The method of claim 1, comprising inserting the applicator via an incision into a mammal.
26. (New) The method of claim 1, comprising inserting the applicator via a natural orifice into a mammal.
27. (New) The method of claim 1, further comprising orienting the applicator with respect to the tissue surface with a gauge.
28. (New) The method of claim 1, wherein the gas comprises CO₂.
29. (New) An apparatus, comprising:
an applicator having a proximal end and a distal end, the distal end of the applicator having a fluent emission element constructed and arranged to emit a mixture of a gas and a pre-polymeric material from a source of pressurized gas and a source of pre-polymeric material.

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30. (New) The apparatus of claim 29, wherein the fluent emission element comprises a nozzle adapted to emit the pre-polymeric material and disperse it in a predetermined pattern.

31. (New) The apparatus of claim 30, wherein the nozzle is adapted to emit the pre-polymeric material in a spray.

32. (New) The apparatus of claim 29, wherein the apparatus comprises means, at the distal end of the applicator, for emitting a second material.

33. (New) The apparatus of claim 32, wherein the fluent emission element and the means for emitting the second material are constructed and arranged to direct the pre-polymeric material and the second material in the same direction.

34. (New) The apparatus of claim 32, wherein the means for emitting the second material is constructed and arranged to apply the second material to a surface in a pattern at least as large as a spray pattern of the fluent emission element.

35. (New) The apparatus of claim 32, wherein the means for emitting the second material is constructed and arranged to apply the second material to a surface in a pattern substantially the same shape as that in which the pre-polymeric material is applied.

36. (New) The apparatus of claim 32, further comprising control means for automatically operating the fluent emission element after the fluent emission element has emitted the pre-polymeric material.

37. (New) The apparatus of claim 29, further comprising control means for automatically operating the fluent emission element.

38. (New) The apparatus of claim 29, wherein the applicator comprises a grippable member at its proximal end and a shaft extending distally from the grippable member.

39. (New) The apparatus of claim 38, wherein the shaft comprises conduits for transmission of at least the pre-polymeric material and the second material.

40. (New) The apparatus of claim 38, wherein the grippable member comprises a reservoir of pre-polymeric material.
41. (New) The apparatus of claim 40, wherein the grippable member comprises a pump mechanism for pumping pre-polymeric material from the reservoir to of the fluent emission element.
42. (New) The apparatus of claim 38, further comprising control means exposed externally of the grippable member for operating the pump mechanism.
43. (New) The apparatus of claim 29, wherein the applicator comprises a shaft extending to the distal end.
44. (New) The apparatus of claim 43, wherein at least part of the shaft is non-rigid.
45. (New) The apparatus of claim 29, further comprising means for emitting a predetermined volume of pre-polymeric material from the fluent emission element for each cycle of operation of the apparatus.
46. (New) The apparatus of claim 29, wherein the emission element is constructed to apply the pre-polymeric material in the form of a coating on the tissue.
47. (New) The apparatus of claim 29, wherein the distal end of the applicator is constructed and arranged to be inserted into the body of a mammal.
48. (New) The apparatus of claim 29, further comprising a pump mechanism for effecting ejection of a predetermined volume of pre-polymeric material from the fluent emission element.
49. (New) The apparatus of claim 48, wherein the pump mechanism includes a self-contained power source for operating the pump mechanism to cause emission of pre-polymeric material.
50. (New) The apparatus of claim 29, further comprising a second emission element at the distal end of the applicator able to emit a second material from a source of a second material.